

wherein:

the wavy bonds represent the α or β configuration, and the dashed bonds represent a single bond, a triple bond or a double bond in the cis or trans configuration;

R is hydrogen, saturated or unsaturated alkyl, [preferably C₁₋₁₀ alkyl,] cycloalkyl, [preferably C₃₋₈ cycloalkyl,] aryl, arylalkyl, [preferably aryl-C₂₋₅ alkyl,] or heteroaryl;

R1 is a saturated or unsaturated alkyl group having 2-5 carbon atoms, optionally interrupted by [a] one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen, cycloalkyl, [preferably C₃₋₇ cycloalkyl,] cycloalkenyl, [preferably C₃₋₇ cycloalkenyl,] aryl or heteroaryl;

X is C-OH or C=O;

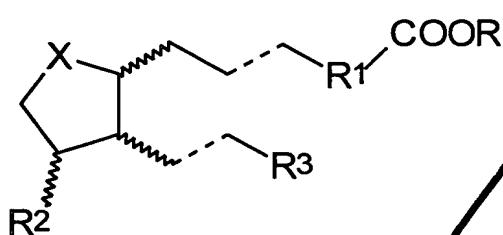
R2 is hydrogen, hydroxy, methyl, ethyl, methoxy or OCOR4, where R4 is a straight or branched chain saturated or unsaturated alkyl group, [preferably C₁₋₁₀ alkyl, especially C₁₋₆ alkyl,] or a cycloalkyl[, preferably C₃₋₈ cycloalkyl,] or aryl group; and

R3 is a straight or branched chain saturated or unsaturated alkyl group, [preferably having 3-8 carbon atoms, especially 3-5 carbon atoms,] optionally interrupted by one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen, each carbon atom optionally being substituted with a substituent selected from C₁₋₅ alkyl, hydroxy and carbonyl groups, [hydroxy and carbonyl preferentially being attached to carbon 15 of the prostaglandin structure,] and said alkyl group optionally containing a cycloalkyl, [preferably C₃₋₈ cycloalkyl,] aryl or heteroaryl group, [which may be] optionally mono- or independently multi-substituted with C₁₋₃ alkyl, C₁₋₃ alkoxy, hydroxy, nitro, trifluoromethyl or halogen; or a pharmaceutically acceptable salt or ester thereof.

Claim 4, line 1, delete "2 or 3."

Claim 5, line 1, delete "2 or 3."

8. (Amended) The method according to claim 6 [or 7], wherein the prostaglandin analogue is a compound of the general formula:



wherein:

the wavy bonds represent the α or β configuration, and the dashed bonds represent a single bond, a triple bond or a double bond in the cis or trans configuration;

R is hydrogen, saturated or unsaturated alkyl, [preferably C_{1-10} alkyl,] cycloalkyl, [preferably C_{3-8} cycloalkyl,] aryl, arylalkyl, [preferably aryl- C_{2-5} alkyl,] or heteroaryl;

R1 is a saturated or unsaturated alkyl group having 2-5 carbon atoms, optionally interrupted by [a] one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen, cycloalkyl, [preferably C_{3-7} cycloalkyl,] cycloalkenyl, [preferably C_{3-7} cycloalkenyl,] aryl or heteroaryl;

X is $C-OH$ or $C=O$;

R2 is hydrogen, hydroxy, methyl, ethyl, methoxy or $OCOR_4$, where R4 is a straight or branched chain saturated or unsaturated alkyl group, [preferably C_{1-10} alkyl, especially C_{1-6} alkyl,] or a cycloalkyl[, preferably C_{3-8} cycloalkyl,] or aryl group; and

R3 is a straight or branched chain saturated or unsaturated alkyl group, [preferably having 3-8 carbon atoms, especially 3-5 carbon atoms,] optionally interrupted by one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen, each carbon

atom optionally being substituted with a substituent selected from C₁₋₅ alkyl, hydroxy and carbonyl groups, [hydroxy and carbonyl preferentially being attached to carbon 15 of the prostaglandin structure,] and said alkyl group optionally containing a cycloalkyl, [preferably C₃₋₈ cycloalkyl,] aryl or heteroaryl group, [which may be] optionally mono-or independently multi-substituted with C₁₋₃ alkyl, C₁₋₃ alkoxy, hydroxy, nitro, trifluoromethyl or halogen; or a pharmaceutically acceptable salt or ester thereof.

9. (Amended) The [composition] method according to claim 6, [7 or 8,] wherein the prostaglandin analogue is 15(R,S)-16,16-trimethylene-PGE₂ or an alkyl ester thereof.

10. (Amended) The [composition] method according to claim 6, [7 or 8,] wherein the prostaglandin analogue is 13,14-dihydro-17-(3-fluorophenyl)-18,19,20-trinor-PGE₂ or an alkyl ester thereof.

Claim 11, line 1, replace "any one of claims 6-10" with --claim 6--.

Please add the following claims 13-21:

--13. (NEW) The composition according to claim 3, wherein R is C₁₋₁₀ alkyl, C₃₋₈ cycloalkyl or aryl-C₂₋₅ alkyl--

--14. (NEW) The composition according to claim 3, wherein R1 is C₃₋₇ cycloalkyl or C₃₋₇ cycloalkenyl--

--15. (NEW) The composition according to claim 3, wherein R2 is hydrogen, hydroxy, methyl, ethyl, methoxy or OCOR4, wherein R4 is C₁₋₁₀ alkyl or C₃₋₈ cycloalkyl--

--16. (NEW) The composition according to claim 3, wherein R3 is a straight or branched chain saturated or unsaturated alkyl group having 3-8 carbon atoms, optionally interrupted by one or more heteroatoms selected from the group consisting of oxygen, sulfur and nitrogen, each carbon atom optionally substituted with a substituent selected from C₁₋₅ alky, hydroxy and carbonyl groups, wherein the hydroxy and carbonyl are attached to carbon 15 of the prostaglandin structure, and said alkyl group optionally containing a C₃₋₈ cycloalkyl, optionally mono- or independently tri-substituted with C₁₋₃ alkyl, C₁₋₃ alkoxy, hydroxy, nitro, trifluoromethyl or halogen.--

--17. (NEW) The composition according to claim 3, wherein R4 is C₁₋₆ alkyl and R3 is a straight or branched chain saturated or unsaturated alkyl group having 3-5 carbon atoms.--

--18. (NEW) The method according to claim 6, wherein R is C₁₋₁₀ alkyl, C₃₋₈ cycloalkyl or aryl-C₂₋₅ alkyl--

--19. (NEW) The method according to claim 6, wherein R1 is C₃₋₇ cycloalkyl or C₃₋₇ cycloalkenyl.--

--20. (NEW) The method according to claim 6, wherein R2 is hydrogen, hydroxy, methyl, ethyl, methoxy or OCOR4, wherein R4 is C₁₋₁₀ alkyl or C₃₋₈ cycloalkyl.--

--21. (NEW) The method according to claim 6, wherein R3 is a straight or branched chain saturated or unsaturated alkyl group having 3-8 carbon atoms, optionally interrupted by